



Air Permit Glossary

Attainment area

An attainment area is a geographic area in which monitored levels of a criteria air pollutant meet a health-based primary standard (national ambient air quality standard, or NAAQS). An area may have an acceptable level for one criteria air pollutant, but may have unacceptable levels for others.

BACT

Best Available Control Technology is required on new or modified major pollution sources in areas that meet federal air quality standards (attainment areas).

Construction permit fees

Fees for construction permit processing generally include but are not limited to:

- \$1,350 application fee
- \$2,300 minor source review base fee **OR** \$4,400 to \$12,000 major source review base fee
- \$400 for each emission source when two or more are reviewed
- \$700 fee for an air quality analysis
- \$2,650-\$4,000 fee for expedited (faster) review. Expedited review is optional, and the charge must only be paid if the DNR meets the expedited deadline.

Criteria air pollutants

Criteria air pollutants are a group of very common air pollutants regulated by the U.S. Environmental Protection Agency on the basis of certain criteria (information on health and/or environmental effects of air pollution). Criteria air pollutants include carbon monoxide, nitrogen oxides, lead, ozone, sulfur dioxide, total suspended particles and particulate matter (inhalable particles).

Exempted sources

Some smaller pollution sources may be exempt from permitting requirements, depending on the area and industry. The DNR *Permit Primer* website helps individual businesses determine what permits they need. Check the end of this glossary for the Permit Primer web address.

Hazardous air pollutants

Hazardous air pollutants are known or suspected to cause serious health effects such as cancer or birth defects, or significant environmental harm. The U.S. EPA has listed *188 hazardous air pollutants*. Examples include benzene (found in gasoline), perchlorethylene, (used in some dry cleaning facilities) and methylene chloride.

LAER

Lowest Achievable Emission Rate is required on new or modified major pollution sources in areas that do not meet federal air quality standards (non-attainment areas).

Major vs. minor sources

A pollution source is designated as minor or major according to the industry, the pollutant(s) being emitted, the type of permit involved (construction or operation) and the air quality of the area where the source is located. In general, a source is major if its emissions exceed certain levels (i.e., thresholds) that are defined in terms of tons per year.

Regarding construction permits...

If the source is located in an area that has attained minimum federal air quality standards (an attainment area), the source is considered major when it has the potential to emit:

- 1) more than 250 tons per year of a regulated air pollutant, or
- 2) more than 100 tons per year of a regulated air pollutant

IF the source is classified as a:

fossil-fuel-fired steam electric plant or boiler exceeding 250 million BTUs/hour heat input, coal cleaning plant (with thermal dryer), kraft pulp mill, portland cement plant, primary zinc smelter, iron or steel mill plant, primary aluminum ore reduction plant, primary copper smelter, municipal incinerator capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, or nitric acid plant, petroleum refinery, lime plant, phosphate rock processing plant, coke oven battery, sulfur recovery plant, carbon black plant (furnace process), primary lead smelter, fuel conversion plant, sintering plant, secondary metal production plant, chemical process plant, petroleum storage or transfer unit with a storage capacity exceeding 300,000 barrels, taconite ore processing plant, glass fiber processing plant, or charcoal production plant.

Regarding construction permits...

If the source is located in an area that has NOT attained minimum federal air quality standards (a non-attainment area), the source is considered major if it emits 100 tons per year or more of any regulated air contaminant except ozone precursors. Ozone non-attainment areas may have lower thresholds for volatile organic compounds and nitrogen oxides, depending on the severity of the pollution.

Regarding operation permits...

Any source that has the potential to emit 100 tons per year or more of any criteria air pollutant is a major source and must obtain a Title V operation permit. Sources in non-attainment areas are considered major if they emit more than 25 tons of volatile organic compounds per year.

Major/minor distinctions are different for hazardous air pollutants. Sources are considered major if they have the potential to emit 10 tons per year of any one of the federally listed hazardous air pollutants or 25 tons per year of any combination of federally listed hazardous air pollutants.

New Source Review

New Source Review (NSR) is a pre-construction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act. NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Plan Requirements for Non-attainment Areas") of Title I of the Clean Air Act.

The NSR program has two parts. **The Prevention of Significant Deterioration (PSD) program** is for geographic areas that meet the National Ambient Air Quality Standards. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade. **The Non-Attainment Area (NAA) program** is for areas that do not meet National Ambient Air Quality Standards.

Modifications to major sources or modifications to minor sources (where the modification itself exceeds the major source threshold) are subject to NSR program requirements if the modification results in a significant net increase in emissions of a regulated pollutant.

Non-attainment area

A non-attainment area is a geographic area in which the monitored level of a criteria air pollutant is higher than the level allowed by federal standards. A single geographic area may have acceptable levels of one criteria air pollutant but unacceptable levels of other criteria air pollutants. An estimated 60% of Americans live in non-attainment areas.

In Wisconsin, Kenosha, Milwaukee, Ozaukee, Racine, Washington and Waukesha counties do not meet federal air quality standards **for ozone** (based on the "1-hour ozone standard") and are currently classified as severe ozone non-attainment areas. Pollution sources in non-attainment areas will have more restrictive permit requirements compared to similar sources in other areas. Kewaunee and Manitowoc counties have recently attained federal standards, but businesses in these counties must still comply with additional requirements.

Ozone

Ozone is a molecule consisting of three oxygen atoms bonded together. Stratospheric ozone shields the Earth from the sun's harmful rays, particularly ultraviolet B. Ground-level ozone is mainly produced by burning coal, gasoline and other fuels. Ground-level ozone is the main component of smog.

RACT

Reasonably Available Control Technology is required on existing pollution sources in areas that do not meet federal air quality standards (non-attainment areas).

State Implementation Plan (SIP)

A State Implementation Plan is a detailed description of the programs a state will use to carry out its responsibilities under the Clean Air Act.

Threshold

Thresholds are the emission levels that divide exempt and non-exempt sources, major and minor sources, etc.

Title V

Title V (Five) of the 1990 Clean Air Act Amendments requires all major sources and some minor sources of air pollution to obtain an operating permit. Title V operating permits may apply to minor sources if the source emits federally regulated hazardous air pollutants or is subject to some other federal air pollution standard.

TPY

TPY is an acronym for tons per year.

Volatile organic compounds (VOCs)

Volatile organic compounds contain carbon and evaporate readily. These chemicals include industrial chemicals such as benzene, and solvents such as toluene and tetrachloroethylene (also known as perchloroethylene, a common dry cleaning solvent). Many volatile organic compounds are also hazardous air pollutants.

Internet Resources

For more detailed information on air permitting in Wisconsin, check the following Department of Natural Resources (DNR) webpages:

The DNR Permit Primer

<http://dnr.wi.gov/permitprimer/>

The DNR Air Permit Improvement Initiative

<http://dnr.wi.gov/org/aw/air/apii/>



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PUB-AM-340 2004



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